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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,468	07/02/2003	Jingwu Z. Zang	057186,000003	5234
7590 05/04/2007 Attention: J. Wendy Davis, Ph.D.			EXAMINER	
BRACEWELL & PATTERSON, L.L.P.			JUEDES, AMY E	
P.O. Box 61389 Houston, TX 77		•	ART UNIT	PAPER NUMBER
110431011, 171 //200-1305			1644	
		•		
			MAIL DATE	DELIVERY MODE
			05/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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APPLICATION NO. /CONTROL NO. FILING DATE 10/612,468 107/02/03 FIRST NAMED INVENTOR / PATENT IN REEXAMINATION 2ATTORNEY DOCKET NO. ZANG ET AL

EXAMINER

Amy Juedes

ART UNIT

PAPER

1644

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents

A copy of the "Sequence Listing" in computer readable form has been submitted on 1/8/07. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."

APPLICANT IS GIVEN ONE MONTH FROM THE DATE OF THIS LETTER WITHIN WHICH TO COMPLY WITH THE SEQUENCE RULES, 37 C.F.R.. §§ 1.821-1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 C.F.R. § 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 C.F.R. § 1.136. In no case may an applicant extend the period for response beyond the six month statutory period. Direct the response to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the response.

The addresses below are effective 5 June 2004. Please direct all replies to the United States Patent and Trademark Office via one (1) of the following:

- Electronically submitted through EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual - ePAVE)
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy E. Juedes, Ph.D. whose telephone number is 571-272-4471. The examiner can normally be reached on 8am - 5pm, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Amy E. Juedes, Ph.D. Patent Examiner Technology Center 1600

> G.R. EWOLDT, PH.D. PRIMARY EXAMINER

Notice to Comply Application No. 10/612,468 Examiner Art Unit Amy E. Juedes, Ph.D. 1644

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set in the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).
The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):
1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
☐ 7. Other:
Applicant Must Provide: ☑ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
An initial or substitute paper copy of the "Sequence Listing", as well as an amendment specifically directing its entry into the application.
☑ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).
For questions regarding compliance to these requirements, please contact:
For Rules Interpretation, call (571) 272-2510 For CRF Submission Help, call (571) 272-2501/2583. Patentln Software Program Support Technical Assistance
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STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/6/2, 4688

Source: 1F4/6

Date Processed by STIC: 1/10/07

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 4.4.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06



DATE: 01/10/2007

TIME: 09:43:35

IFW16

```
Input Set : A:\D6622SEQ.txt
                        Output Set: N:\CRF4\0110200/\J612468B.raw
22.89
       3 <110> APPLICANT: Zhang, Jingwu Z.
                Ho, Walter Kowk Keung
       5
                Zhang, Dongqing
                Sun, Wei
       6
       8 <120> TITLE OF INVENTION: T Cell Receptor CDR3 Sequence and Methods for
              Detecting and Treating Rheumatoid Arthritis
      11 <130> FILE REFERENCE: D6622
      13 <140> CURRENT APPLICATION NUMBER: US 10/612,468B
                                                                       see pp 1-3
      14 <141> CURRENT FILING DATE: 2003-07-02
      16 <159> NUMBER OF SEQ ID NOS: 168
                                                                   Does Not Comply
                                                                  Corrected Diskette Needed
 ERRORED SEQUENCES
      416 <210> SEQ ID NO: 29
      417 <211> LENGTH: 21
      418 <212> TYPE: DNA
      419 <213> ORGANISM: Artificial Sequence
      421 <220> FEATURE:
      422 <221> NAME/KEY: primer bind
      423 <223> OTHER INFORMATION: reverse primer specific for TCR BV11 used in real-time

424 PCR analysis insert a hard ruturn after <400729

426 <400> SEQUENCE: 29 atgtgagggc ctggcagact c 21
      688 <210> SEQ ID NO: 50
      689 <211> LENGTH: 23 2127
 B--> 690 (22) DNA (212)
691 <213> ORGANISM: Artificial Sequence
       693 <220> FEATURE:
       694 <221> NAME/KEY: primer_bind
       695 <223> OTHER INFORMATION: forward primer specific for TCR BV22 used in real-time
      696
                 PCR analysis
                       ١.
      698 <400> SEQUENCE: 50
                                                                    23
      699 cacagatqqq acaggaagtg atc
       727 <210> SEQ ID NO: 53
       728 <211> LENGTH: 21
       729 <212> TYPE: DNA
       730 <213> ORGANISM: Artificial Sequence
       732 <220> FEATURE:
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734 <223> OTHER INFORMATION: reverse primer specific for TCR BV23 used in real-

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/612,468B

time PCR analysis

E--> 733 (21) primer_bind

735

RAW SEQUENCE LISTING DATE: 01/10/2007
PATENT APPLICATION: US/10/612,468B TIME: 09:43:35

Input Set : A:\D6622SEQ.txt

Output Set: N:\CRF4\01102007\J612468B.raw

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737 <400> SEQUENCE: 53
                                                             21
    738 cagctccaag gagctcatgt t
    740 <210> SEQ ID NO: 54
    741 <211> LENGTH: 24
    742 <212> TYPE: DNA
    743 <213> ORGANISM: Artificial Sequence
    745 <220> FEATURE:
    746 <221> NAME/KEY: primer_bind
    747 <223> OTHER INFORMATION: forward primer specific for TCR BV24 used in real-time
    748 PCR analysis (InSert a hard return
750 <400> SEQUENCE: 54 ccaagatacc aggttaccca gttt 24
    1271 <210> SEQ ID NO: 93
    1272 <211> LENGTH: 20
     1273 <212> TYPE: PRT
     1274 <213> ORGANISM: Homo sapiens
     1276 <220> FEATURE:
     1277 <221> NAME/KEY: Domain
    _1278 <223> OTHER THEORMATION: CDR3 amino agid sequence of BV16 closetype derived.
           from ST specimen of RA patient
     1281 <400> SEQUENCE: 93
     1282 Tyr Phe Cys Ala Ser Ser Gln Ala Asp Gly Thr His Tyr Glu Gln
                               misaligned arend acid number
                           5
     1283
     1284 Phe Phe Gly Pro Gly
                         . 20
E--> 1285-20-
     1287 <210> SEQ ID NO: 94
    1288 <211> LENGTH: 60 /2/2/
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     1292 <220> FEATURE:
     1293 <221> NAME/KEY: CDS
     1294 <223> OTHER INFORMATION: CDR3 nucleic acid sequence of BV16 clonotype derived
               from ST specimen of RA patients
     1298 <400> SEQUENCE: 94
     1299 tatttctgtg ccagcagcca agctgacggg acccattacg agcagtactt
                                                                        50
     1300 cgggccgggc
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     1969 <211> LENGTH: 57) (2127
B--> 1970 (<213 DNA
     1971 <213> ORGANISM: Artificial Sequence
     1973 <220> FEATURE:
     1974 <221> NAME/KEY: CDS
     1975 <223> OTHER INFORMATION: CDR3 nucleic acid sequence of BV14 clonotype derived
                from ST specimen of RA patients
     1978 <400> SEQUENCE: 140
     1979 tacttctgtg ccagcagttt atcttcgaca gggagggagc agtacttcgg gccgggc 57
    2371 <210> SEQ ID NO: 168
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RAW SEQUENCE LISTING

DATE: 01/10/2007 TIME: 09:43:35

PATENT APPLICATION: US/10/612,468B

Input Set : A:\D6622SEQ.txt

Output Set: N:\CRF4\01102007\J612468B.raw

2372 <211> LENGTH: 54 2373 <212> TYPE: DNA

2374 <213> ORGANISM: Artificial Sequence

2376 <220> FEATURE:

2377 <221> NAME/KEY: CDS

2378 <223> OTHER INFORMATION: CDR3 nucleic acid sequence of BV14 clonotype derived

2379 from ST specimen of RA patients

2381 <400> SEQUENCE: 168

2382 tacttctgtg ccagcagttc cctcgctact gctgaagctt tctttggaca aggc 54

B--> 2383 /??`\

B--> 2385/??

B--> 2387 ??

B--> 2389 ??

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/612,468B

DATE: 01/10/2007 TIME: 09:43:36

Input Set : A:\D6622SEQ.txt

L:2389 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:168

Output Set: N:\CRF4\01102007\J612468B.raw

L:426 M:301 E: (44) No Sequence Data was Shown, SEQ ID:29 L:426 M:252 E: No. of Seq. differs, <211> LENGTH:Input:21 Found:0 SEQ:29 L:690 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:698 M:282 E: Numeric Field Identifier Missing, <212> is required. L:733 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:750 M:301 E: (44) No Sequence Data was Shown, SEQ ID:54 L:750 M:252 E: No. of Seq. differs, <211> LENGTH:Input:24 Found:0 SEQ:54 L:1285 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:93 L:1289 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:1298 M:282 E: Numeric Field Identifier Missing, <212> is required. L:1970 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:1978 M:282 E: Numeric Field Identifier Missing, <212> is required. L:2383 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:2385 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:168 L:2385 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:2387 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:168 L:2387 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1

L:2389 M:334 E: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1